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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,012	01/21/2005	Yasuo Shinomiya	12480-000088/US	2053
30593	7590	12/13/2006	EXAMINER	
HARNES, DICKEY & PIERCE, P.L.C. P.O. BOX 8910 RESTON, VA 20195			EWALD, MARIA VERONICA	
			ART UNIT	PAPER NUMBER
			1722	

DATE MAILED: 12/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/522,012	SHINOMIYA ET AL.	
	Examiner	Art Unit	
	Maria Veronica D. Ewald	1722	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☒ Claim(s) 10 and 11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9/13/06</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Allowable Subject Matter

13. Claims 10 – 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The following is a statement of reasons for the indication of allowable subject matter: Prior art, either alone or in combination, fails to teach a rolled cone manufacturing apparatus wherein each of the supporting means is a link mechanism including a toggle mechanism, said link mechanism serving as opening and closing means, locking means, and a guiding member for guiding a material sheet into the concave half and wherein the supporting means includes, provided that a part where the loop of the supporting means is cut off is referred to as a split part, a positioning and fixing member for positioning and fixing the split part in place, when the supporting means is closed, said positioning and fixing member serving as a guiding member when the material sheet is brought into the concave half.

Claim Rejections - 35 USC § 112

14. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. As written, claim 2, line 4, states "...supporting the axis..."

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which is unclear since it has not been specified which axis is being identified. Claim 2 should be rewritten to state that "...while, when closed, supporting the axis **of the convex half...**" so that it is clear the axis being supported is that of the convex half and *not the concave half*.

Claim Rejections - 35 USC § 102

15. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 – 3, 5 – 6 and 8 – 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Haas, Sr., et al. (U.S. 4,624,855). Haas, Sr., et al. teach a rolled cone manufacturing apparatus, comprising: a concave half (item 3 – figure 2) and a convex half (item 8 – figure 2) which form a cavity inside when combined with each other (figure 2), a cross section of the cavity having a circular shape in a direction orthogonal to axes of the concave half and the convex half; and supporting means which rotatably supports the convex half, on condition that the axis of the concave half is aligned with the axis of the convex half (item 9 – figure 2), said supporting means being openable and closable (column 4, lines 67 – 68; column 5, lines 1 – 20), and pushing on at least three points (item 12 – figure 2; item 12 – figure 5; column 5, lines 5 – 20), an outer periphery of a part of the convex half protruding from the concave half onto the axis, when said supporting means is closed (figure 2; column 5, lines 1 – 20); wherein the supporting

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means includes (i) opening and closing means for, when opened, releasing support of the axis of the convex half, while when closed, supporting the axis, and (ii) locking means for keeping the opening and closing means closed (column 5, lines 5 – 35); wherein positions of supporting points of the supporting means are determined in such a manner as to form either (I) a polygon encompassing the axis of the convex half, by connecting points where the supporting means contacts an outer periphery of a part of the convex half protruding from the concave half (figure 5), or (II) when the supporting means functions as a sliding bearing, either a circle around the axis or a closed curved figured by connecting arcs centering on the axis (column 5, lines 20 – 25, 40 – 46; figures 2 and 5).

With respect to claims 5 – 6, the reference further teaches that the convex half is rotatable when the supporting means is closed (column 5, lines 15 – 35), while the convex half is movable toward the axis when the supporting means is open (column 5, lines 1 – 20); wherein the concave half has an opening part through which the convex half is fitted in, said supporting means partly protruding inwardly of the opening part when said supporting means is closed (figure 2).

With respect to claims 8 – 9, the reference also teaches that wherein, when cross sections of the concave half and the convex half are circular in a direction orthogonal to the axes of the concave half and the convex half, the concave half and the convex half are conical-shaped, truncated-cone shaped, or cylinder-shaped (figure 2); wherein the supporting means is a loop-shaped member which is openable and closable (figure 2).

Claim Rejections - 35 USC § 103

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Haas, Sr., et al. in view of Haas, Sen., et al. (U.S. 6,227,103). Haas, Sr., et al. (U.S. 4,624,855) teach the characteristics previously described but do not teach that there are rolling objects provided on respective supporting points of the supporting means.

In a method to form cones, Haas, Sen., et al. (U.S. 6,227,103) teach that there is a support frame on which a rotatable shaft is mounted (item 13 – figure 5). The shaft supports the convex half of a pair of molds used for molding wafers into ice cream cones. The shaft is supported and driven by means of a drive wheel and is rotatably supported by two bearings (items 11 and 12 – figure 2). The bearings facilitate the rotation of the shaft during roll-up of a cone.

Thus, it would have been obvious to one of ordinary skill in the art at the time of the Applicant's invention to configure the apparatus of Haas, Sr., et al. (U.S. 4,624,855) with the bearings of Haas, Sen., et al. (U.S. 6,227,103) for the purpose of allowing the rotation of the convex half against the bearing surface to ensure a smooth rotation of the convex half, reduce friction and thereby, produce quality cones.

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Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Haas, Sr., et al. in view of Taylor (U.S. 1,720,304). Haas, Sr., et al. teach the characteristics previously described but do not teach that there is a slit-type inlet connected to the cavity formed at the side of the concave half and a guiding member covering a surrounding of the opening part provided around the inlet and the opening part.

In a method to form rolled ice cream cones, Taylor teaches the use of a pair of molds – a convex half and a concave half. The convex half is supported by a shaft and inserted into the concave half to form a cavity. Warm and pliable wafers are introduced into the cavity via a slot (item 6b – figure 1) and guided by a flange (item 6c – figure 1) and subsequently rolled into the cone shape as the shaft rotates.

Thus, it would have been obvious to one of ordinary skill in the art at the time of the Applicant's invention to modify the apparatus of Haas, Sr., et al. with the slit and flange of Taylor for the purpose of introducing the wafer into the cavity for rolling and for facilitating the guiding of the wafer into the cavity.

Response to Arguments

17. Applicant's arguments, see pages 4 – 6, filed September 13, 2006, with respect to the rejection(s) of claim(s) 1 – 9 and 11 under 102(b), with respect to the references of Taylor and Haas have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Haas, Sr., et al. (U.S. 4,624,855). Examiner agrees with Applicant's arguments that neither Taylor nor Haas anticipated the structural limitations

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of claim 1. Upon further consideration, Examiner has cited the reference of Haas, Sr., et al. Haas, Sr., et al. teach an apparatus for forming rolled cones, in which a convex half is inserted into a concave half. There is a sizing device, which rotatably supports the convex half through the use of pressure-applying fingers, which support the convex half. Thus, the sizing device acts as an additional bearing for the convex half as it rotates to form the rolled cone. In addition, the sizing device can be advanced and thus, closed with respect to the convex half, thereby advancing the pressure-applying fingers on the convex half and securing it as it rotates. Alternatively, the sizing device can be retracted and thus, opened, with respect to the concave half, thereby retracting the pressure-applying fingers after the rotation is completed and the cone is removed.

Conclusion


18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Maria Veronica D. Ewald whose telephone number is 571-272-8519. The examiner can normally be reached on M-F, 8 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Yogendra Gupta can be reached on 571-272-1316. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MVE


JAMES P. MACKEY
PRIMARY EXAMINER

12/11/06